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A1 **APPLICATION FOR PATENT OF INVENTION**
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(54) Pneumatic brush

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The present invention concerns a pneumatic hairbrush, that is, a brush the bristles of which are implanted in packets into a flexible membrane or cushion, the edges of which are assembled in a mounting having an air pillow between the cushion and the mounting. This arrangement provides vertical and lateral flexibility to the brush.

In this type of brush, the packets of bristles or tufts, even if they are soldered or burned on the back of the cushion to avoid them being torn off, have the inconvenience of becoming pushed in, which is very disadvantageous for the tufts at the center which are farthest removed from the mounting. An attempt was made to eliminate this disadvantage by making cushions with sheets of flexible material with different gluing characteristics, but without success.

The present invention is aimed to remedy these disadvantages.

For this purpose, opposite each hole that is to receive a tuft or packet of bristles, the cushion has a well that is able to hold the end of implantation of the tufts under consideration regardless of the means provided for their attachment by clipping, gluing, anchoring or other.

Thus, the tufts cannot penetrate beyond the bottom of the wells.

According to a first embodiment of the invention, the cushion is made of a plate of flexible material such as an injectable plastic material, the thickness of which is greater than the depth of the wells.

However, according to a preferred embodiment of the invention, the cushion is made of a thin sheet of flexible material, such as an injectable plastic material, on the face of which the wells protrude with an interval between each one.

This arrangement has the advantage to permit a greater flexibility to the cushion, because the wells can be inclined with respect to one another.

Materials which are particularly suitable for the realization of this cushion are injectable plastic materials, such as thermoplastic materials, such as polyethylene or even an expanded plastic material, such as polyurethane.

In any case, the invention will be well understood with the aid of the description which follows with reference to the schematic drawing attached representing an embodiment of this hairbrush as a nonlimiting example:

Figure 1 is a perspective view;

Figure 2 is a sectional view along 2 – 2 of Figure 1;

Figure 3 is on a larger scale a partial view of Figure 2 illustrating the method of anchoring a packet of bristles or tufts.

The pneumatic brush illustrated in the drawing has a cushion 2 on which packets of bristles or tufts 3 are implanted which is assembled in a rigid mount 4 by engaging its peripheral edge 2a in a recess 4a provided for receiving it on mount 4.

As shown in the drawing, the cushion 2 has wells 5 opening on its outside surface and a packet of bristles 3 is anchored in each one of these.

Each packet of bristles 3 is attached in the well 5 corresponding to it by engagement with force and, in the example illustrated in the drawing, its retention is assured by clamping which results from the presence of clip 6 that serves to assemble the bristles of each packet of bristles 3.

The attachment of the packets of bristles 3 in wells 5 could evidently be obtained in several other ways, notably by gluing, anchoring or similar. In all cases, the bottom wall of wells 5 opposes any protrusion of the packet of bristles 3 beyond the position in which they are implanted.

In the example illustrated in the drawing, cushion 2 is made of a flexible membrane made of an injectable plastic such as polyethylene, each well 5 being formed by a projection of plastic material protruding on the posterior face or inside cushion 2.

This form of embodiment has the advantage that each well 5 can carry out its own angular displacement, thus providing maximum flexibility to this brush.

Naturally, as indicated above, cushion 2 can be made from a plastic material with a greater thickness, with the thickness being slightly greater than the depth of well 5. In

this case, the cushion 2 could be made of an expanded plastic material, notably of expanded polyurethane.

As it is obvious, and as it follows from what was said above, the invention is not limited to the only embodiment of this pneumatic brush which was described above as a nonlimiting example; on the contrary, it embraces all the variations of realization.

PATENT CLAIMS

1. Pneumatic brush of the type in which the bristles are implanted in packets into a flexible membrane or cushion, the edges of which are assembled in a mount with arrangement of a pillow of air between the cushion and the mount, characterized by the fact that for each hole provided for receiving a tuft or a packet of bristles, a well is provided that can hold the extremity of implantation of the tuft under consideration regardless of the means provided for their attachment by a clip, gluing, anchoring, or other.

2. Pneumatic brush according to Claim 1, characterized by the fact that the cushion is made of a plate of flexible material such as an injectable plastic material, the thickness of which is greater than the depth of the wells.

3. Pneumatic brush according to Claim 1, characterized by the fact that the cushion consists of a thin film made of a flexible material, such as an injectable plastic material and that the wells protrude beyond the lower face of it, with an interval between each one.

4. Pneumatic brush according to Claims 1 and 2, characterized by the fact that the cushion is made of an expanded plastic material, for example, of expanded polyurethane.

5. Pneumatic brush according to Claims 1 and 3, characterized by the fact that it is made of an injectable plastic material, such as polyethylene.

FIG. 1

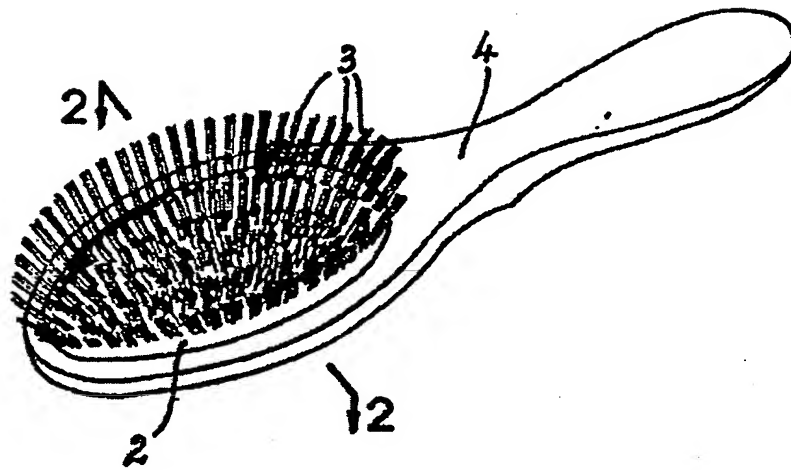


FIG. 2

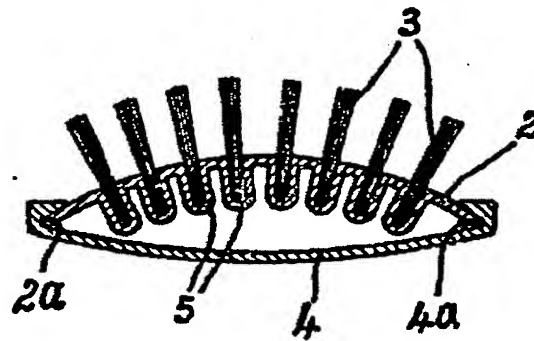


FIG. 3

